

Instruction manual



MODEL 690LR

Including
Motor and 1001 Base



MODEL 690LRVS

Including
Motor and 1001 Base



MODEL 691

Including
Motor and 6911 Base



6931 BASE

IMPORTANT

Please make certain that the person who is to use this equipment carefully reads and understands these instructions before starting operations.

The Model and Serial No. plate is located on the main housing of the tool. Record these numbers in the spaces below and retain for future reference.

Model No. _____

Type _____

Serial No. _____

PORTER-CABLE
PROFESSIONAL POWER TOOLS

Routers

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IMPORTANT SAFETY INSTRUCTIONS

WARNING Read and understand all warnings and operating instructions before using any tool or equipment. When using tools or equipment, basic safety precautions should always be followed to reduce the risk of personal injury. Improper operation, maintenance or modification of tools or equipment could result in serious injury and property damage. There are certain applications for which tools and equipment are designed. Porter-Cable strongly recommends that this product NOT be modified and/or used for any application other than for which it was designed.

If you have any questions relative to its application DO NOT use the product until you have written Porter-Cable and we have advised you.

Online contact form at www.porter-cable.com

Postal Mail: Technical Service Manager

Porter-Cable Corporation

4825 Highway 45 North

Jackson, TN 38305

Information regarding the safe and proper operation of this tool is available from the following sources:

Power Tool Institute

1300 Sumner Avenue, Cleveland, OH 44115-2851

www.powertoolinstitute.org

National Safety Council

1121 Spring Lake Drive, Itasca, IL 60143-3201

American National Standards Institute, 25 West 43rd Street, 4 floor, New York, NY 10036 www.ansi.org ANSI 01.1Safety Requirements for Woodworking Machines, and the U.S. Department of Labor regulations www.osha.gov

SAVE THESE INSTRUCTIONS!

SAFETY GUIDELINES - DEFINITIONS

It is important for you to read and understand this manual. The information it contains relates to protecting YOUR SAFETY and PREVENTING PROBLEMS. The symbols below are used to help you recognize this information.



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

CALIFORNIA PROPOSITION 65

WARNING Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known (to the State of California) to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints
- crystalline silica from bricks and cement and other masonry products
- arsenic and chromium from chemically-treated lumber

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, always wear MSHA/NIOSH approved, properly fitting face mask or respirator when using such tools.

GENERAL SAFETY RULES*

WARNING Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.



SAVE THESE INSTRUCTIONS

1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control

2) Electrical safety

- a) **Power tool plugs must match the outlet.** Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock
- b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock
- d) **Do not abuse the cord.** Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool.** Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Avoid accidental starting.** Ensure the switch is in the off-position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.

GENERAL SAFETY RULES* continued

- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of these devices can reduce dust-related hazards.

4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools.** Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. **If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

5) Service

- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

ADDITIONAL SPECIFIC SAFETY RULES

1. **Hold power tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
2. **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
3. **Disconnect tool from power source** before making adjustments or changing bits.
4. **Tighten Collet nut** securely to prevent the bit from slipping.
5. **Use a clamp** or some other device to hold the workpiece rigidly in position and clear the path of the tool of obstructions.
6. **Provide clearance** under workpiece for router bit when through-cutting.
7. **Check to see that the cord** will not "hang up" during routing operation.
8. **Clear the router bit area** before starting motor.
9. **Maintain firm grip** on router to resist starting torque.
10. **Keep hands clear of bit** when motor is running to prevent personal injury.
11. **Keep cutting pressure constant.** Do not overload motor.
12. **let the motor come to a complete stop** before putting the tool down.
13. **Never touch** router bits after use. They may be extremely hot.
14. **Never tighten collet nut** without a bit.
15. **Do not use router bits** with a diameter in excess of 2-1/2" at RPM above 13,000. Router bits up to 3-1/2" in diameter can be used when speed control is set for 13,000 RPM or less.
16. **Always keep chip shield** clean and in place.
17. **Avoid "Climb-Cutting"** (see "Using The Router" section in this manual). "Climb-cutting" increases the chance for loss of control resulting in possible personal injury.
18. **Do not hand-hold the router in an upside-down or horizontal position.** The motor can separate from the base if not properly attached according to the instructions.
19. **Wear eye and hearing protection. Always use safety glasses.** Everyday eyeglasses are NOT safety glasses. USE CERTIFIED SAFETY EQUIPMENT. Eye protection equipment should comply with ANSI Z87.1 standards. Hearing equipment should comply with ANSI S3.19 standards.
20. **Take precautions against dust inhalation.** The dust generated by certain woods and wood products can be injurious to your health. Always operate machinery in well-ventilated areas, and provide for proper dust removal. Use wood dust collection systems whenever possible. Also, use face or dust mask if cutting operation is dusty. Dust mask protection should comply with MSHA/NIOSH certified respirator standards. Splinters, air-borne debris, and dust can cause irritation, injury, and/or illness.
21. **Some wood contains preservatives which can be toxic.** Take extra care to prevent inhalation and skin contact when working with these materials. Request and follow any safety information available from your material supplier.

SAVE THESE INSTRUCTIONS!

SYMBOL		DEFINITION
V	.....	volts
A	.....	amperes
Hz	.....	hertz
W	.....	watts
kW	.....	kilowatts
F	.....	farads
μF}	.....	microfarads
l	.....	litres
g	.....	grams
kg	.....	kilograms
bar	.....	bars
Pa	.....	pascals
h	.....	hours
min	.....	minutes
s	.....	seconds
n_0	.....	no-load speed
.../min or ...min ⁻¹	.....	Revolutions or reciprocations per minute
--- or d.c.	.....	direct current
~ or a.c.	.....	alternating current
2 \text{~}	.....	two-phase alternating current
2N \text{~}	.....	two-phase alternating current with neutral
3 \text{~}	.....	three-phase alternating current
3N \text{~}	.....	three-phase alternating current with neutral
 A	.....	rated current of the appropriate fuse-link in amperes
 X	.....	time-lag miniature fuse-link where X is the symbol for the time/current characteristic, as given in IEC 60127
	.....	protective earth
	.....	class II tool
IPXX	.....	IP symbol

MOTOR

Many Porter-Cable tools will operate on either D.C., or single phase 25 to 60 cycle A.C. current and voltage within plus or minus 5 percent of that shown on the specification plate on the tool. Several models, however, are designed for A.C. current only. Refer to the specification plate on your tool for proper voltage and current rating.

CAUTION Do not operate your tool on a current on which the voltage is not within correct limits. Do not operate tools rated A.C. only on D.C. current. To do so may seriously damage the tool.

EXTENSION CORD SELECTION

If an extension cord is used, make sure the conductor size is large enough to prevent excessive voltage drop which will cause loss of power and possible motor damage. A table of recommended extension cord sizes will be found in this section. This table is based on limiting line voltage drop to 5 volts (10 volts for 230 volts) at 150% of rated amperes.

If an extension cord is to be used outdoors, it must be marked with the suffix W-A or W following the cord type designation. For example - SJTW-A to indicate it is acceptable for outdoor use.

RECOMMENDED EXTENSION CORD SIZES FOR USE WITH PORTABLE ELECTRIC TOOLS

Nameplate Ampere Rating	Length of Cord in Feet									
	115V	25 Ft.	50 Ft.	100 Ft.	150 Ft.	200 Ft.	250 Ft.	300 Ft.	400 Ft.	500 Ft.
	230V	50 Ft.	100 Ft.	200 Ft.	300 Ft.	400 Ft.	500 Ft.	600 Ft.	800 Ft.	1000 Ft.
0-2	18	18	18	16	16	14	14	12	12	12
2-3	18	18	16	14	14	12	12	10	10	10
3-4	18	18	16	14	12	12	10	10	8	8
4-5	18	18	14	12	12	10	10	8	8	8
5-6	18	16	14	12	10	10	8	8	8	6
6-8	18	16	12	10	10	8	6	6	6	6
8-10	18	14	12	10	8	8	6	6	6	4
10-12	16	14	10	8	8	6	6	4	4	4
12-14	16	12	10	8	6	6	6	4	4	2
14-16	16	12	10	8	6	6	4	4	4	2
16-18	14	12	8	8	6	4	4	2	2	2
18-20	14	12	8	6	6	4	4	2	2	2

SAVE THESE INSTRUCTIONS!

FUNCTIONAL DESCRIPTION

FOREWORD

Porter-Cable routers are designed for continuous, rugged operation to handle the most demanding production applications.

SELECTING THE BIT

These Porter-Cable routers are furnished with 1/4" and 1/2" diameter collets to accommodate bits with 1/4" or 1/2" diameter shanks installed directly into the power unit collet. An accessory collet is available that will allow the use of bits having 3/8" diameter shanks.

WARNING

Do not use router bits with a diameter **in excess** of 2-1/8" in this tool.

WARNING

ALWAYS disconnect this tool from the power source when preparing the tool for use, when making adjustments, and when the tool is not in use.

1001 BASE

INSTALLING AND REMOVING THE BIT

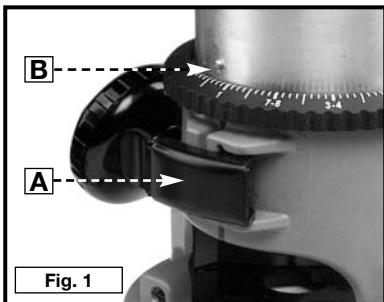


Fig. 1

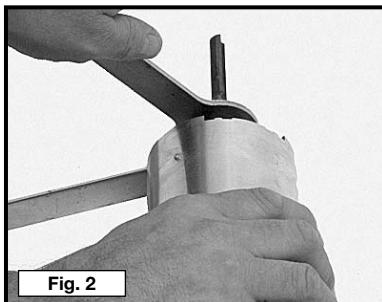


Fig. 2

WARNING DISCONNECT TOOL FROM POWER SOURCE.

1. To remove motor unit from base unit:
 - (a) Open the clamp (A) Fig. 1.
 - (b) While holding base, turn power unit COUNTER-CLOCKWISE until the lower pin (B) in the motor housing is disengaged from groove in base.
 - (c) Lift power unit free from base unit.
2. Clean and insert the shank of the bit into the collet until the shank bottoms, then back it out approximately 1/16".
3. Lay the power unit on its side on a bench with the collet pointing AWAY from you.
4. Place one wrench on the flats of the chuck with the opposite end of the wrench resting on the bench to your left (Fig. 2).
5. Place other wrench on the collet and tighten COUNTER-CLOCKWISE. Tighten firmly.
6. To remove the bit, reverse the procedure.

CAUTION Avoid possible damage to collet. Never tighten collet without a bit.

INSTALLING THE MOTOR

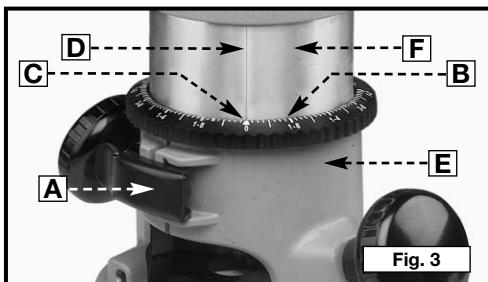
WARNING DISCONNECT TOOL FROM POWER SOURCE.

1. Open the clamp (A) Fig. 1 and set the power unit in the base unit.
2. Align the lower pin of the power unit (B) Fig. 1 with the groove in the base.
3. Rotate the power unit CLOCKWISE into the base until the upper guide pins are set in the groove of the base.
4. Close the clamp.

ADJUSTING DEPTH OF CUT

⚠WARNING DISCONNECT TOOL FROM POWER SOURCE.

1. Open the clamp (A) Fig. 3.
2. Hold the base (E) and turn the power unit (F) Fig. 3 COUNTER-CLOCKWISE until the tip of the bit is above the bottom of the base.
3. Set the tool on a flat surface.
4. Turn the power unit (F) Fig. 3 CLOCKWISE until bit touches the work.
5. Close the clamp (A) Fig. 3.
6. Rotate the depth adjusting ring (B) Fig. 3 until the zero-line (C) is opposite the index line (D) on the housing.
7. Open the clamp (A) Fig. 3.
8. Tip the router so that the bit is clear of the work surface. Turn the power unit (F) Fig. 3 CLOCKWISE until the index line (D) on the motor housing reaches the desired depth indicated on the ring.
9. Close the clamp (A) Fig. 3.



NOTE: Setting the index line to 1/4" on the ring means the cutting edge of the bit is exposed 1/4" below the base.

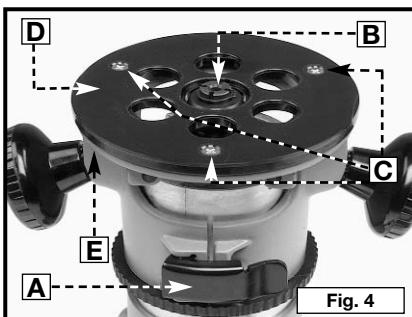
ADJUSTING SUB-BASE ALIGNMENT (All Routers)

Applications using a templet guide require the bit to be centered in the guide. This, in turn, requires the center hole in the sub-base to be in line with the collet of the motor unit. Your model has an adjustable sub-base which has been aligned at the factory. If the sub-base has been removed and/or readjustment is required, use the following procedure:

CAUTION

Be sure power switch is in "OFF" position and tool is disconnected from power source to avoid accidental starting of motor which could result in injury.

1. Loosen the sub-base mounting screws (C) Fig. 4 just enough to allow the sub-base (D) to move.
2. Open the clamp (A) Fig. 4, and adjust the power unit so that the collet nut (B) engages the center hole in the sub-base (D). Allow the sub-base to center itself on the collet nut. Close the clamp (A).
3. Tighten the sub-base mounting screws (C) Fig. 4 securely.



INSTALLING THE MOTOR

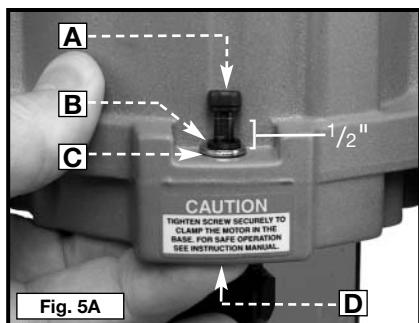


Fig. 5A

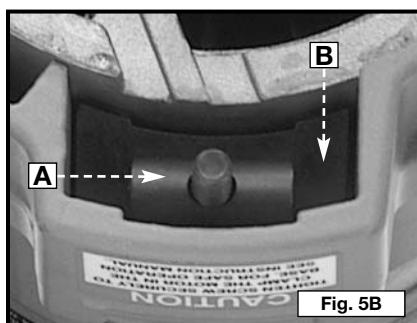


Fig. 5B

WARNING DISCONNECT TOOL FROM POWER SOURCE.

1. Support motor clamp (Fig. 5A) and loosen motor clamp screw approximately 1/2" with the hex wrench (furnished).
2. Insert motor unit into the base with switch positioned at front of left handle, and align the four pins (A) Fig. 6 in the motor case with the slots (B) Fig. 6 in the base.
3. Seat the motor in the base and tighten the motor clamp screw.

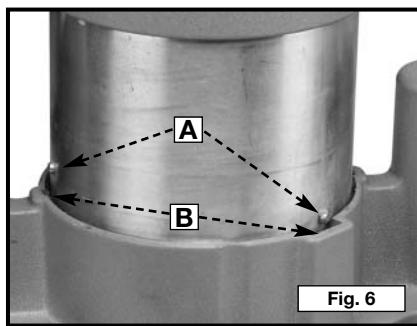


Fig. 6

REMOVING MOTOR

WARNING DISCONNECT TOOL FROM POWER SOURCE.

1. Remove clamp screw (A) Fig. 5A, flat washer (B), lock washer (C), and clamp-locking nut (A) Fig. 5B.
2. Insert hex wrench (A) Fig. 7 to contact locking plate. Tap lightly to release and remove locking plate.
3. Slide motor out of base.
4. Reassemble clamp screw, lock washer, flat washer, locking plate and clamp locking nut to the base and tighten lightly to prevent loss.

INSTALLING AND REMOVING THE BIT

WARNING

Be certain that the power switch is in the “OFF” position and tool is disconnected from power source to avoid accidental starting of motor which could result in injury.

1. Stand router upside down on its motor cap (Fig. 8).
2. Clean and insert shank of bit into collet until the shank bottoms. Then back it out approximately 1/16".
3. Place one wrench on flats on chuck and one wrench on collet nut (Fig. 8). Tighten firmly.
4. To remove the bit, reverse the procedure.

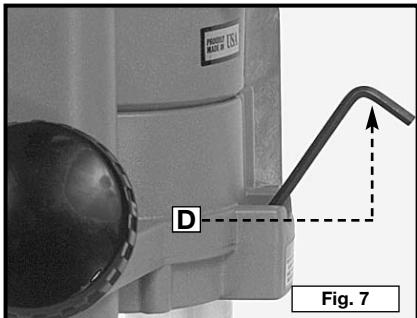


Fig. 7

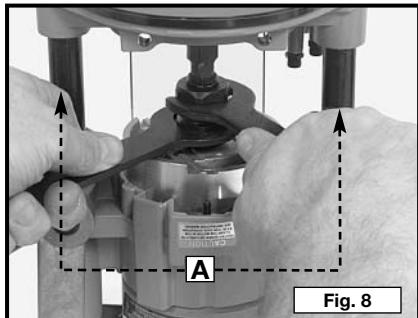


Fig. 8

CAUTION Do not allow the wrenches to contact the columns (A) Fig. 9. Columns could be damaged, restricting the plunge action.

CAUTION Avoid possible damage to collet. Never tighten collet without a bit.

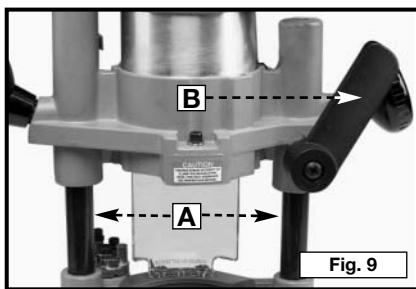


Fig. 9

ADJUSTING THE PLUNGE BASE

WARNING DISCONNECT TOOL FROM POWER SOURCE.

1. Loosen depth rod locking knob (A) Fig. 10, and depth indicator knob (D) Fig. 10, allowing the depth rod (E) Fig. 10 to contact one of the turret stops (B) Fig. 10. Normally the deepest desired cut is set with the depth rod resting on the shortest turret stop (A) Fig. 11. The other two fixed stops (B) Fig. 11 provide reduced cutting depths of 1/4" and 1/2" respectively. The three adjustable stops (C) Fig. 11 may be adjusted to any desired height. Any combination of fixed and/or adjustable stops may be utilized to achieve the desired depths required for a particular job.

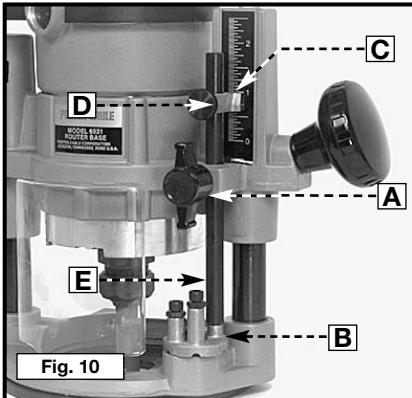


Fig. 10

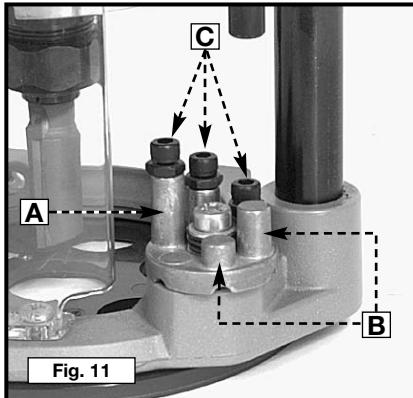


Fig. 11

- Release plunge mechanism by pulling the locking lever (B) Fig. 9 to the left. Lower the plunge mechanism until the router bit touches the work surface. Release the lever and push it to the right to lock the mechanism in this position.
- Tighten depth-rod locking knob.
- Position depth indicator (C) Fig. 10 at the "0" position and tighten the knob.
- Loosen depth-rod locking knob (A) Fig 10, and raise until indicator aligns with the graduation representing the desired depth of plunge. (The example in Fig. 12 shows setting for 1" plunge.)
- Turn lower-travel limiting nut (A) Fig. 13 until it is approximately 1/4" above the top of the plunge housing (Fig. 13). While holding lower nut, turn upper nut until it "jams" against the lower nut.

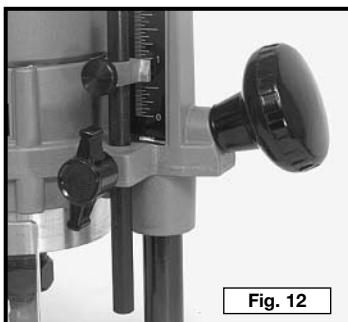


Fig. 12

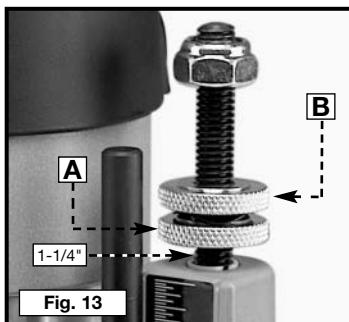


Fig. 13

CAUTION

The travel limiting nuts must always be "jammed" together to prevent movement (caused by vibration) which could prevent full bit retraction.

CAUTION

The travel limiting nuts must always be set so that bit can be retracted into the base of the router, clear of the workpiece.

CAUTION

DO NOT attempt to increase the plunge travel by readjusting the stop nut. Increasing the travel beyond 2-1/2" can cause the mechanism to jam.

ADJUSTING THE PLUNGE LOCKING LEVER

The plunge-locking mechanism may be adjusted to reposition lever (in locked position), or to compensate for wear.

To adjust:

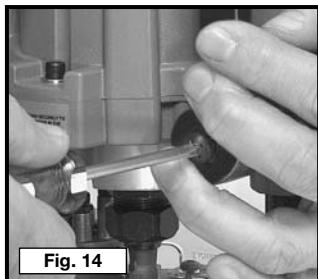


Fig. 14

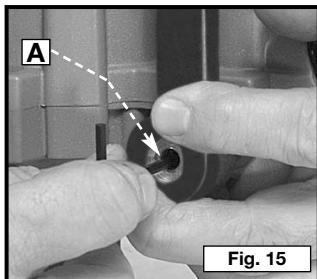


Fig. 15

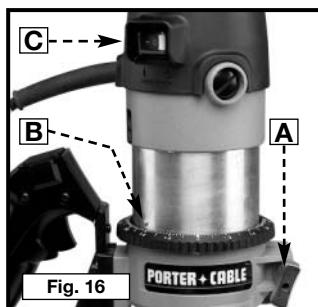


Fig. 16

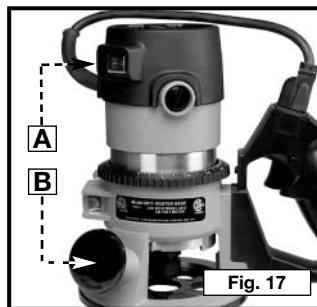


Fig. 17

⚠WARNING DISCONNECT TOOL FROM POWER SOURCE.

1. While holding lever in upright position (Fig. 14), remove retaining screw. Continue to hold lever through remaining steps.
2. Insert 1/8" hex wrench (A) Fig. 15 (not furnished) into adjustment screw and turn counter-clockwise approximately 1/2 turn.
3. Move lever to desired locked position and tighten adjustment screw.
4. Remove hex wrench and replace retaining screw.

ATTACHING THE POWER UNIT TO THE "D" HANDLE

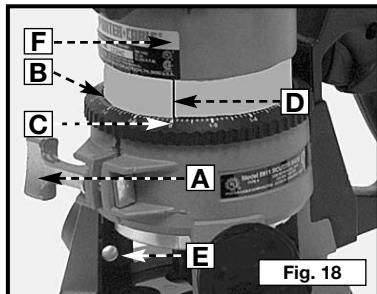
⚠WARNING DISCONNECT BOTH POWER CORDS (base and motor) FROM POWER SOURCE.

1. Loosen the clamp screw (A) Fig. 16 to set the power unit in the base unit.
2. With the motor switch (C) Fig. 16 in the "ON" position, insert the motor unit into the base aligning the lower pin (B) with the groove in the base.
3. Rotate the motor unit into the base CLOCKWISE until the motor switch (A) Fig. 17 is directly above the knob handle (B) Fig. 17.
4. Connect the motor unit cord to the outlet in handle (C) Fig. 17.
5. Continue rotating the motor unit into the base until upper guide pins set rigidly into base.
6. Tighten the clamp screw firmly.

ADJUSTING DEPTH OF CUT

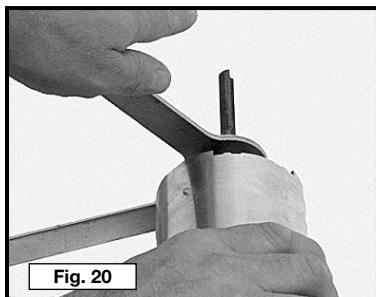
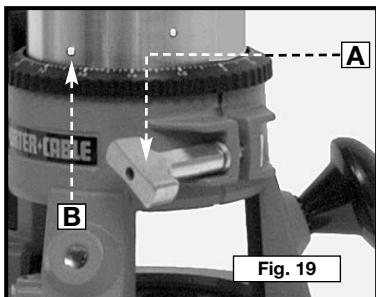
⚠WARNING DISCONNECT TOOL FROM POWER SOURCE.

1. Loosen the clamp screw (A) Fig. 18.
2. Hold the base (E) and turn the motor unit (F) Fig. 18 **COUNTER-CLOCKWISE** until the tip of the bit is above the bottom of the base.
3. Set the router on a flat surface.
4. Turn the motor unit (F) Fig. 18 **CLOCKWISE** until bit touches the wood surface.
5. Tighten the clamp screw (A) Fig. 18.
6. Rotate the depth adjusting ring (B) Fig. 18, until the zero-line (C) is opposite the index line (D) on the motor housing.
7. Loosen the clamp screw (A) Fig. 18.
8. Tip the router so that the bit is clear of the wood surface. Turn the motor unit (F) Fig. 18 **CLOCKWISE** until the index line (D) on the motor housing reaches the desired depth indicated on the ring.
9. Tighten the clamp screw (A) Fig. 18 firmly.



NOTE: Setting the index line to 1/4" on the ring means the cutting edge of the bit is exposed 1/4" below the base.

INSTALLING AND REMOVING THE BIT



⚠WARNING DISCONNECT TOOL FROM POWER SOURCE.

1. Remove the motor unit from the base unit:
 - (a) Loosen the clamp screw (A) Fig. 19.
 - (b) While holding the base, turn the motor unit COUNTER-CLOCKWISE until the lower pin (B) in the motor housing is disengaged from the groove in the base.
 - (c) Lift the motor unit from the base unit.
2. Clean and insert the shank of the bit into the collet until the shank bottoms. Then back it out approximately 1/16".
3. Lay the motor unit on its side on a supporting surface with the collet pointed **AWAY** from you.

4. Place one wrench on the flats of the chuck with the opposite end of the wrench resting on the bench to your left (Fig. 18C).
5. Place the other wrench on the collet and tighten COUNTER-CLOCKWISE (Fig. 20). Tighten firmly.
6. To remove the bit, reverse the procedure.

CAUTION

Avoid possible damage to collet. Never tighten collet without a bit.

CONNECTING TO POWER SOURCE

CAUTION

Before connecting tool to power source, **CHECK TO SEE THAT THE SWITCH IS IN THE “OFF” POSITION**. Also, check the power circuit to see that it is the same as that shown on specification plate of the tool.

STARTING AND STOPPING THE MOTOR

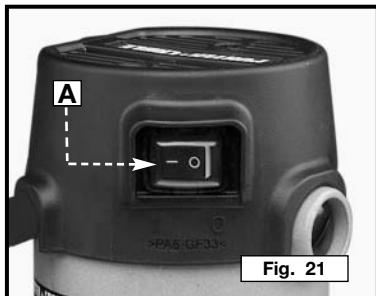


Fig. 21

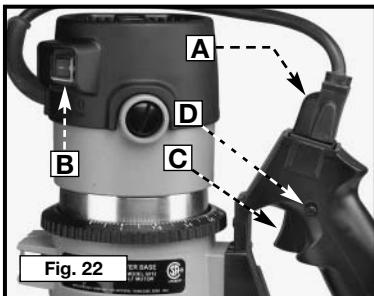


Fig. 22

CAUTION

Before starting the tool, clear the work area of all foreign objects. Also keep firm grip on tool to resist starting torque.

To start the tool, move the rocker switch (A) Fig. 21 to the “ON” or “1” position. To stop the tool, move the rocker switch to the “OFF” or “0” position.

CAUTION

To avoid personal injury and/or damage to finished work, always allow the power unit to come to a COMPLETE STOP before putting the tool down.

STARTING AND STOPPING THE MOTOR - “D” Handle

CAUTION

Before starting the tool, clear the work area of all foreign objects. Also keep a firm grip on the tool to resist starting torque.

Check to see that the motor unit power cord (A) Fig. 22 is plugged into the handle, and that the switch (B) on the motor is set to the “ON” position. The starting and stopping of the motor is then controlled by pressing and releasing the trigger switch (C) Fig. 20 in the handle of the base.

To allow the tool to run without continually pressing the trigger (C) Fig. 22, press the trigger (C) into the handle and engage the switch locking button (D) on the side of the handle. While holding the button in, slowly release the trigger. To stop the tool, squeeze the trigger into the handle and release.

▲ CAUTION

To avoid injury and/or damage to finished work, always allow motor to come to a COMPLETE STOP before putting the tool down.

SOFT START

The Model 690LRVS has a “Soft Start” feature designed to minimize startup reaction torque.

VARIABLE STARTING SPEED CONTROL (690LRVS)

This router is equipped with a variable speed control (A) Fig. 23 with an infinite number of speeds between 10,000 and 27,000 RPM.

The speed is adjusted by turning the speed control knob (A), labeled 1 through 4, with 1 being the slowest speed and 4 being the highest.



Fig. 23

USING THE TOOL

IMPORTANT: Before using the tool, consider the kind and total amount of material to be removed. More than one cut may be necessary to avoid overloading the power unit. Before beginning the cut on the actual workpiece, make a sample cut on a piece of scrap lumber. This will allow you to see the finished cut and to check dimensions.

▲ CAUTION

Always be sure the work is rigidly clamped or otherwise secured before making a cut.

Generally speaking, when working on a bench, the workpiece should be held on the bench by wood clamps. When routing edges, hold the router firmly down and against the work with both guiding knobs.

Since the cutter rotates clockwise (when viewing router from top), the router should be moved from left to right as you stand facing the work. When working on the inside of a templet, move the router in a clockwise direction.

When working on the outside of a templet, move the router in a counter-clockwise direction.

▲ WARNING

Avoid “Climb-Cutting” (cutting in direction opposite that shown in Fig. 24). “Climb-Cutting” increases the chance for loss of control resulting in possible injury. When “Climb-Cutting” is required (backing around a corner), exercise extreme caution to maintain control of router.

The speed and depth of cut will depend largely on the workpiece. Keep the cutting pressure constant but do not crowd the router so the motor speed slows excessively. On exceptionally hard woods or problem materials, more than one pass at various settings may be necessary to get the desired depth of cut.

When making cuts on all four edges of the workpiece, make the first cut on the end of the piece across the grain. If chipping of wood occurs at the end of a cut, it will be removed when making the next cut parallel with the grain.

Periodically wipe columns clean with a dry cloth. DO NOT lubricate the columns.

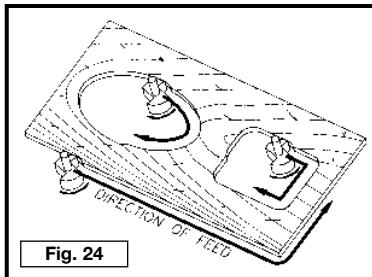


Fig. 24

THE EDGE GUIDE

An edge guide is available as an accessory to aid in routing operations such as straight edge planing, parallel grooving, dado, or slotting operations.

To attach, insert guide rods (A) in holes in base Fig. 25, and secure with screws (B). The guide (C) is adjusted on the rods and secured the desired position with thumb screws (D).

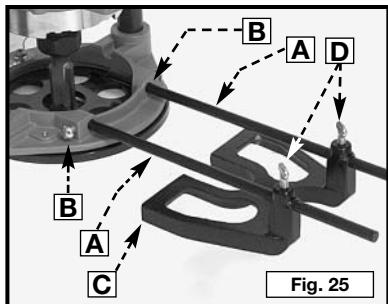


Fig. 25

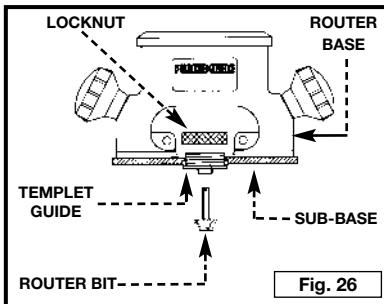


Fig. 26

TEMPLET GUIDES

A wide variety of templet guides is available for use in pattern and templet routing operations. A typical combination bit, templet guide, and locknut are illustrated in Fig. 264.

WARNING DISCONNECT TOOL FROM POWER SOURCE.

To install, insert templet guide in center hole in router base and secure in place with a locknut. Before connecting router to power source, install the bit, adjust the depth of cut, and rotate the router chuck by hand to ensure that bit or collet do not contact the templet guide.

TROUBLESHOOTING GUIDE

For assistance with your tool, visit our website at www.porter-cable.com for a list of service centers or call the Porter-Cable help line at 1-800-487-8665.

MAINTENANCE

KEEP TOOL CLEAN

Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material.

!WARNING Wear ANSI Z87.1 safety glasses while using compressed air.

FAILURE TO START

Should your tool fail to start, check to make sure the prongs on the cord plug are making good contact in the outlet. Also, check for blown fuses or open circuit breakers in the line.

LUBRICATION

This tool has been lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions. No further lubrication is necessary.

BRUSH INSPECTION

For your continued safety and electrical protection, brush inspection and replacement on this tool should ONLY be performed by an AUTHORIZED PORTER-CABLE SERVICE STATION or a PORTER-CABLE•DELTA FACTORY SERVICE CENTER.

At approximately 100 hours of use, take or send your tool to your nearest authorized Porter-Cable Service Station to be thoroughly cleaned and inspected. Have worn parts replaced and lubricated with fresh lubricant. Have new brushes installed, and test the tool for performance.

Any loss of power before the above maintenance check may indicate the need for immediate servicing of your tool. DO NOT CONTINUE TO OPERATE TOOL UNDER THIS CONDITION. If proper operating voltage is present, return your tool to the service station for immediate service.

SERVICE

REPLACEMENT PARTS

When servicing use only identical replacement parts. For a service parts list or to learn more about Porter-Cable visit our website at www.porter-cable.com

SERVICE AND REPAIRS

All quality tools will eventually require servicing, or replacement of parts due to wear from normal use. For assistance with your tool, visit our website at www.porter-cable.com for a list of service centers or call the Customer Care Department at 1-800-487-8665. All repairs made by our service centers are fully guaranteed against defective material and workmanship. We cannot guarantee repairs made or attempted by others.

Should you have any questions about your tool, feel free to write us at any time. In any communications, please give all information shown on the nameplate of your tool (model number, type, serial number, etc.).

ACCESSORIES

A complete line of accessories is available from your Porter-Cable•Delta Supplier, Porter-Cable•Delta Factory Service Centers, and Porter-Cable Authorized Service Stations. Please visit our Web Site www.porter-cable.com for a catalog or for the name of your nearest supplier.

⚠ WARNING Since accessories other than those offered by Porter-Cable•Delta have not been tested with this product, use of such accessories could be hazardous. For safest operation, only Porter-Cable•Delta recommended accessories should be used with this product.

WARRANTY

PORTER-CABLE LIMITED ONE YEAR WARRANTY

Porter-Cable warrants its Professional Power Tools for a period of one year from the date of original purchase. We will repair or replace at our option, any part or parts of the product and accessories covered under this warranty which, after examination, proves to be defective in workmanship or material during the warranty period. For repair or replacement return the complete tool or accessory, transportation prepaid, to your nearest Porter-Cable Service Center or Authorized Service Station. Proof of purchase may be required. This warranty does not apply to repair or replacement required due to misuse, abuse, normal wear and tear or repairs attempted or made by other than our Service Centers or Authorized Service Stations.

ANY IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WILL LAST ONLY FOR ONE (1) YEAR FROM THE DATE OF PURCHASE.

To obtain information on warranty performance please write to: PORTER-CABLE CORPORATION, 4825 Highway 45 North, Jackson, Tennessee 38305; Attention: Product Service. THE FOREGOING OBLIGATION IS PORTER-CABLE'S SOLE LIABILITY UNDER THIS OR ANY IMPLIED WARRANTY AND UNDER NO CIRCUMSTANCES SHALL PORTER-CABLE BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

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Parts and Repair Service for Porter-Cable • Delta Power Tools are Available at These Locations
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Fax: (630) 910-0360

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